Operational Oceanography: Securi Future

Rear Admiral Timothy McGee, Commander

Naval Meteorology and Oceanography Command

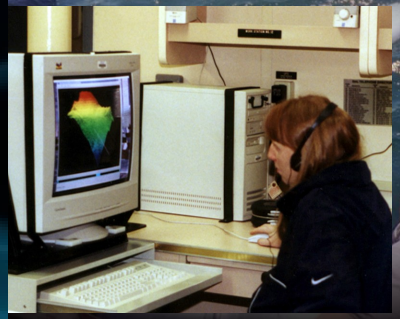
NAVAL METEOROLOGY AND OCEANOGRAPHY COMMAND

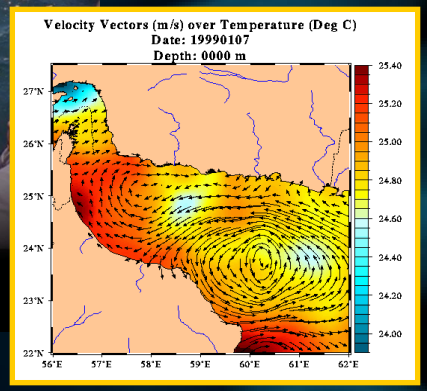
COMNAVMETOCCO

Operational Oceanography

International Cooperation

- Data Collection
- Data Assimilation
- Data Modeling
- Shared Results: Data disseminated by the National Oceanic and Atmospheric Administration

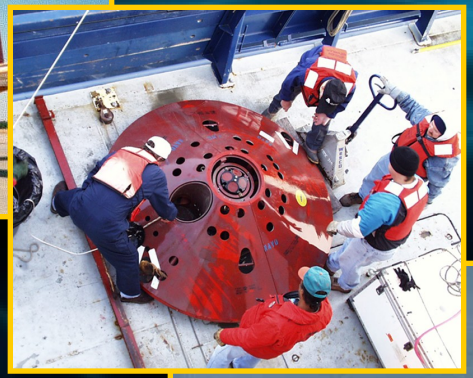




NAVAL METEOROLOGY AND OCEANOGRAPHY COMMAND

COMNAVMETOCCO

Advanced Data Collection



NAVAL METEOROLOGY AND OCEANOGRAPHY COMMAND

COMNAVMETOCCO

Centralized Operational Capability

- Largest concentration of Oceanographers, Geophysicists, and Hydrographers. Global Center of Expertise (COE) for Hydrography and Oceanography.
- One of the world's leading super-computing facilities – executing terra-scale operational computing and peta-scale data management and storage (24/7).
- National Center for Multi-Channel Sea Surface Temperature (MC-SST) Analysis and GEOSAT Altimetry
- AVHRR – Center of Expertise for Advanced Very High Resolution Radiometer
- Maury Library – World's Leading Military Oceanographic Library
- Operate Seven Multipurpose Oceanographic Survey Vessels - Worldwide

HYCOOP
Hydrographic Cooperative Program

HYCOOP - Hydrographic Cooperation

NAVAL METEOROLOGY AND OCEANOGRAPHY COMMAND

COMNAVMETOCCO

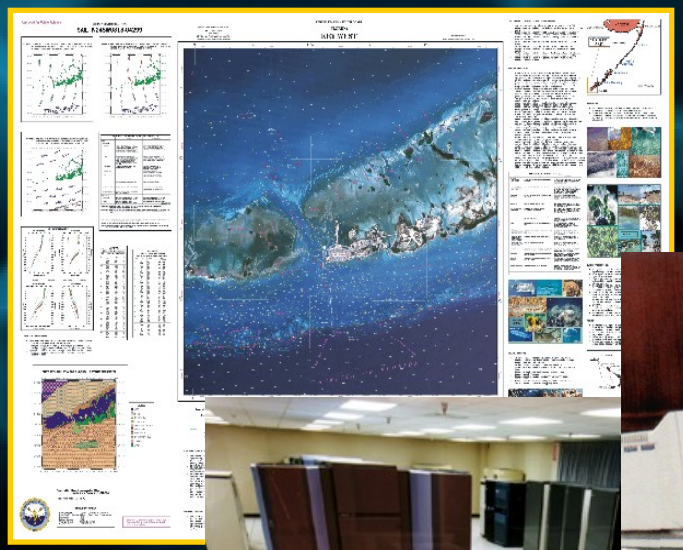
Buoy Partnerships

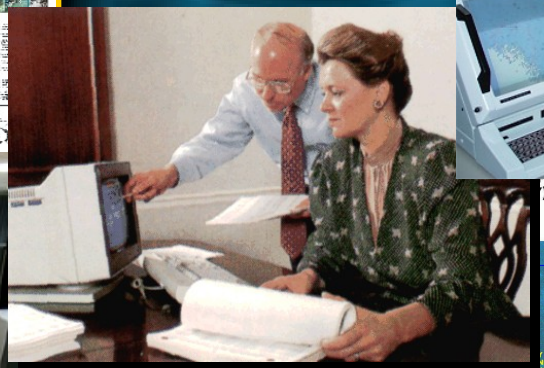
- APEX (31)
- ARC-MET (7)
- DAVIS (6)
- DAVIS-GPS (13)
- WOCE (75)
- WOCE-GPS (10)
- WOTAN (27)

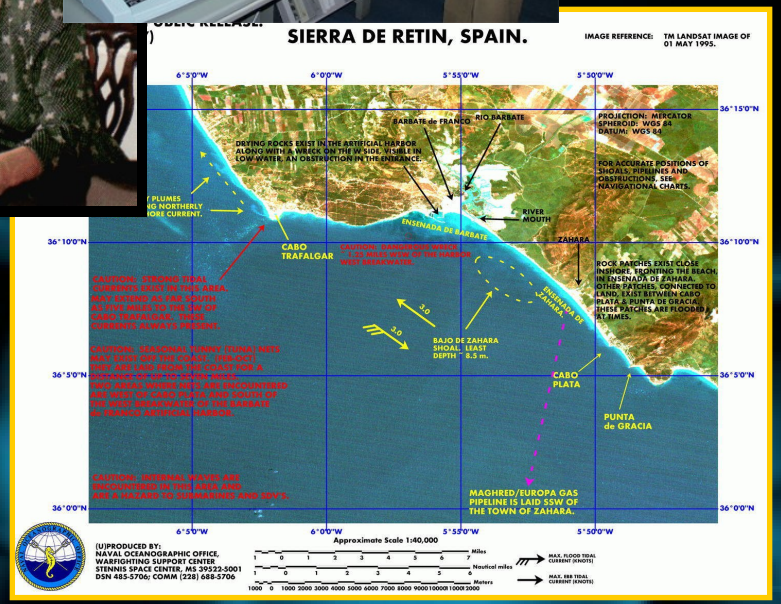
NAVAL METEOROLOGY AND OCEANOGRAPHY COMMAND

COMNAVMETOCCO

Data Assimilation



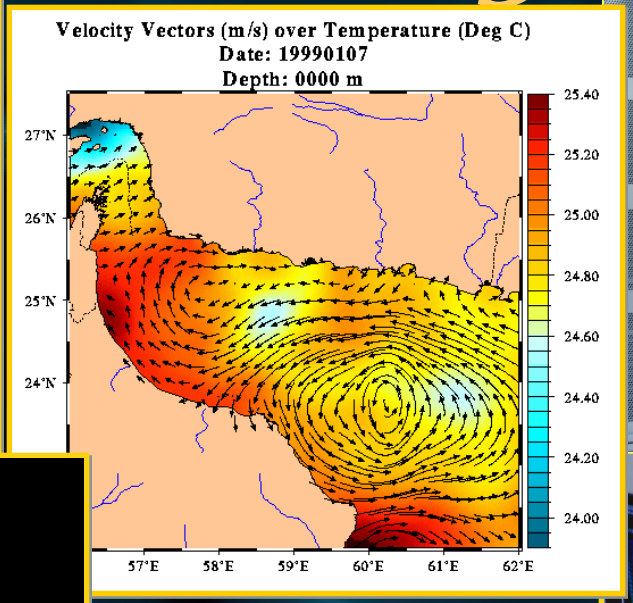


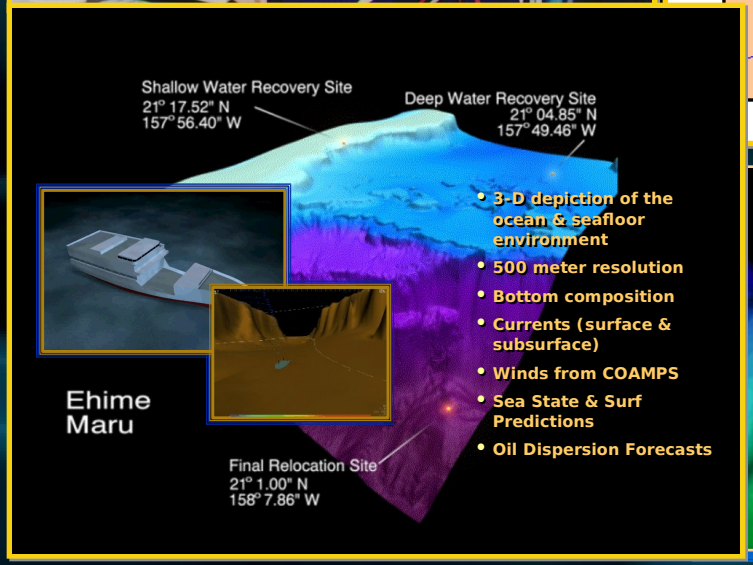


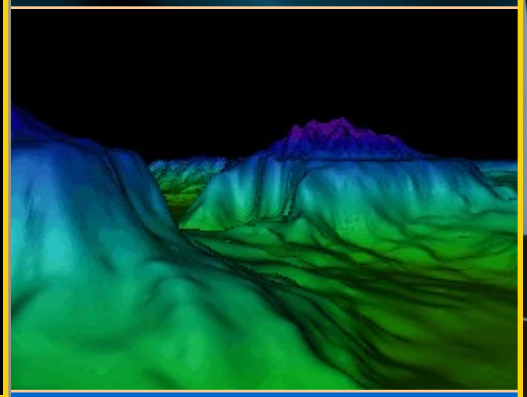
NAVAL METEOROLOGY AND OCEANOGRAPHY COMMAND

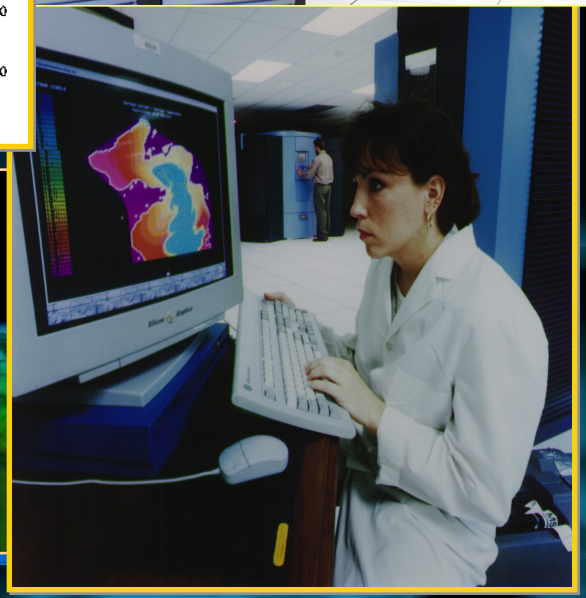
COMNAVMETOCCO

Modeling









NAVAL METEOROLOGY AND OCEANOGRAPHY COMMAND

COMNAVMETOCCO

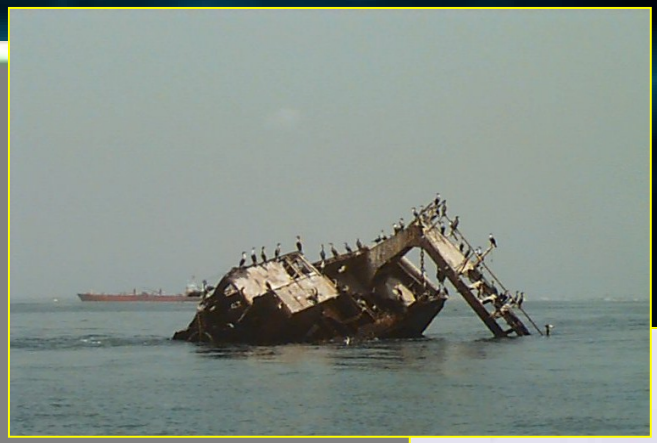
Operational Oceanography for Mitigation and Exploitation

NAVAL METEOROLOGY AND OCEANOGRAPHY COMMAND

COMNAVMETOCCO

Baseline for Economic Development and Coastal Zone Management

Dakar, Senegal



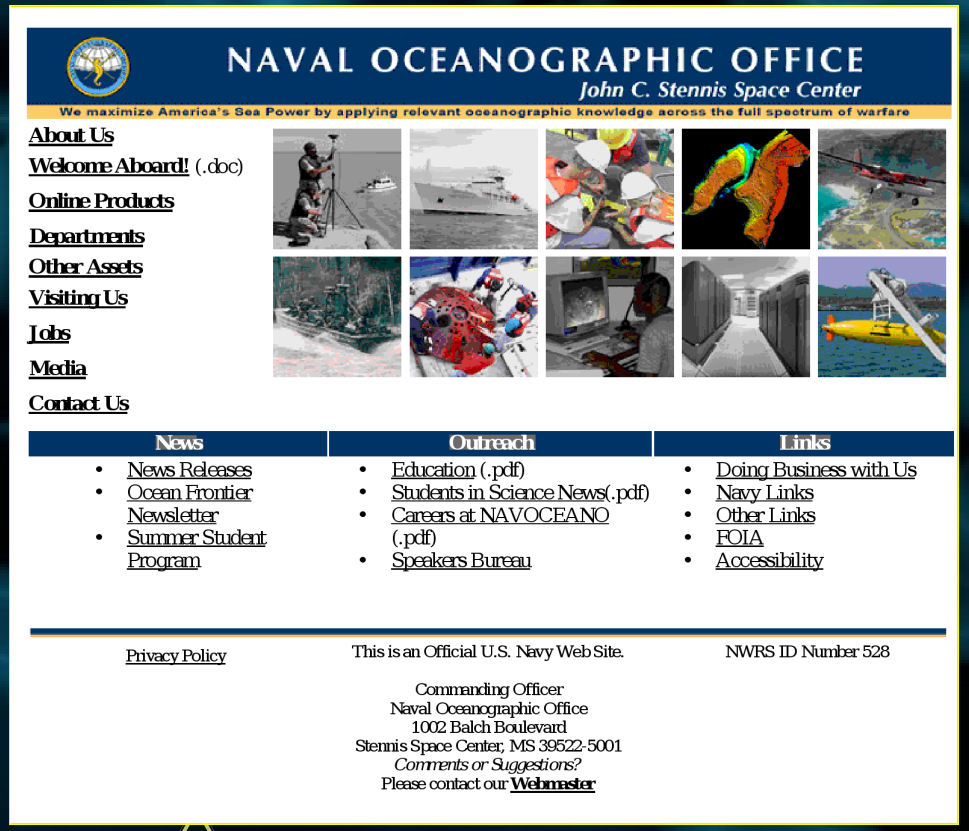
NAVAL METEOROLOGY AND OCEANOGRAPHY COMMAND

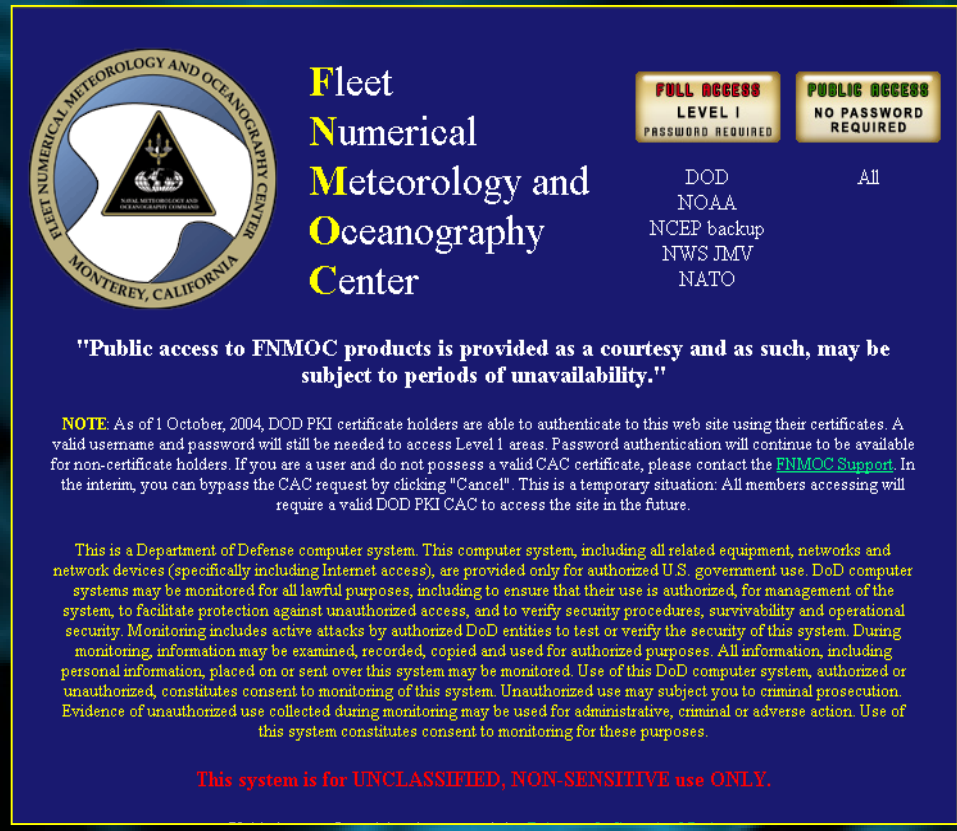
COMNAVMETOCCO

24/7 - Operational Oceanography Delivers

Naval Oceanographic Office and Fleet Numerical Web Sites

https://www.navo.navy.mil https://www.fnmoc.na

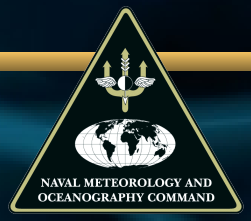



FLEET NUMERICAL METEOROLOGY AND OCEANOGRAPHY CENTER
MONTEREY, CALIFORNIA
Fleet Numerical Meteorology and Oceanography Center
FULL ACCESS
LEVEL I
PASSWORD REQUIRED
PUBLIC ACCESS
NO PASSWORD REQUIRED
DOD
NOAA
NCEP backup
NWS JMV
NATO
All
"Public access to FNMOC products is provided as a courtesy and as such, may be subject to periods of unavailability."
NOTE: As of 1 October, 2004, DOD PKI certificate holders are able to authenticate to this web site using their certificates. A valid username and password will still be needed to access Level 1 areas. Password authentication will continue to be available for non-certificate holders. If you are a user and do not possess a valid CAC certificate, please contact the FNMOC Support. In the interim, you can bypass the CAC request by clicking "Cancel". This is a temporary situation: All members accessing will require a valid DOD PKI CAC to access the site in the future.
This is a Department of Defense computer system. This computer system, including all related equipment, networks and network devices (specifically including Internet access), are provided only for authorized U.S. government use. DoD computer systems may be monitored for all lawful purposes, including to ensure that their use is authorized, for management of the system, to facilitate protection against unauthorized access, and to verify security procedures, survivability and operational security. Monitoring includes active attacks by authorized DoD entities to test or verify the security of this system. During monitoring, information may be examined, recorded, copied and used for authorized purposes. All information, including personal information, placed on or sent over this system may be monitored. Use of this DoD computer system, authorized or unauthorized, constitutes consent to monitoring of this system. Unauthorized use may subject you to criminal prosecution. Evidence of unauthorized use collected during monitoring may be used for administrative, criminal or adverse action. Use of this system constitutes consent to monitoring for these purposes.
This system is for UNCLASSIFIED, NON-SENSITIVE use ONLY.

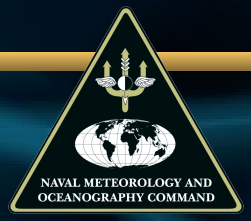
NAVAL METEOROLOGY AND OCEANOGRAPHY COMMAND

COMNAVMETOCCO

Questions



Back up Slides

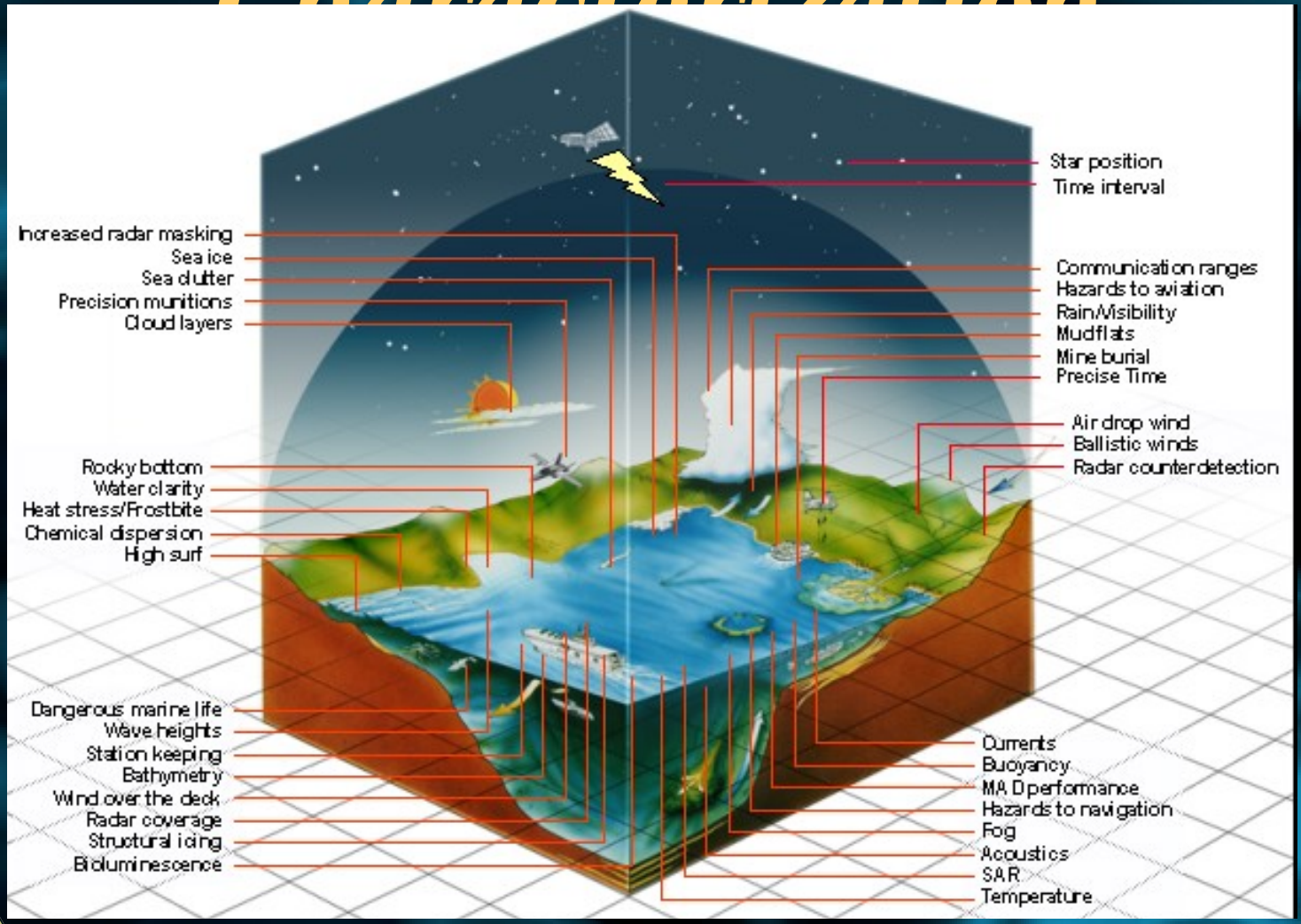


Examples of International Cooperation

- Promoted assistance in search and recovery after Sweden ferry disaster
- Provided assistance in recovery of downed Albanian fighter
- Resurveyed ports such as Honduras after hurricane
- Resurveyed ports and approaches after recent tsunami to help facilitate
- Survey ports such as Jordan and Romania to open for commercial and military traffic
- Assist in economic development by surveying coastlines in countries such as Eritrea, Albania and Croatia.
- Provide buoys, deployment, data and LUTS to improve worldwide weather forecasts
- Provide data such as MCSST,and wave model output to assist the world weather community and shipping interests
- Conducted beach clearance survey in Haiti
- Assist in development of Hydrographic and Oceanographic data collections which can lead to:
  - Coastal Zone Management
  - Mineral and Hydrocarbon Exploitation
  - Natural Resource Conservation

NAVAL METEOROLOGY AND OCEANOGRAPHY COMMAND

Environmental Characterization



NAVAL METEOROLOGY AND OCEANOGRAPHY COMMAND

COMNAVMETOCCO